REPORT OF THE

OFFICE OF THE AUDITOR GENERAL

257

EVALUATION OF GENERAL PROPOSALS TO ALLOW STATE AND LOCAL INVESTMENT AUTHORITIES IN CALIFORNIA TO INCREASE INTEREST INCOME BY TEMPORARILY LENDING INVESTMENT SECURITIES THROUGH "SECURITY LOANS" AND "REVERSE REPURCHASE AGREEMENTS"

MARCH 1975

TO THE

JOINT LEGISLATIVE AUDIT COMMITTEE

STATE OF CALIFORNIA

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March 14, 1975

Honorable Bob Wilson
Chairman, and Members of the
Joint Legislative Audit Committee
Room 4126, State Capitol
Sacramento, California 95814

Dear Mr. Chairman and Members:

Transmitted herewith is our report pertaining to our evaluation of general proposals to allow state and local investment authorities to increase interest income by temporarily lending investment securities through "security loans" and "reverse repurchase agreements".

Respectfully submitted,

Harvey M. Rose
Auditor General

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TABLE OF CONTENTS

INTRODUCTION

In response to a legislative request, we have reviewed specific investment techniques used by institutional investors to earn additional interest income from certain securities in their portfolios of which they are legal owners.

The two most commonly used techniques are referred to as "security loans" and "reverse repurchase agreements". Briefly stated, security loans are a temporary loan of specific investment securities to a broker-dealer or bank with the intention of increasing interest income normally received. Reverse repurchase agreements are a simultaneous sale and purchase of specific government securities with a broker-dealer, bank or savings and loan association with the intention of increasing interest income normally received. Although private institutional investors also use reverse repurchase agreements to reduce the costs of borrowing money for operations, that purpose would not be applicable to state and local governments.

Security loans and reverse repurchase agreements are recognized, accepted and regulated by the Federal Reserve Board, New York Stock Exchange and the investment authorities for many institutional investors.

Institutional investors, which temporarily lend securities through security loans and reverse repurchase agreements, include the Federal Reserve System, certain university and college endowment funds, private and public pension funds, banks, savings and loan associations, mutual funds, investment advisory services and the general investment funds of some states, excluding California.

This review was made to provide information to the California Legislature on general proposals to allow California state and local investment authorities to enter into security loans and reverse repurchase agreements. The intent of these proposals is to increase the interest income normally received from investments in the portfolios of state and local government agencies.

A security loan is a written contract whereby a legal owner, referred to as the "lender", agrees to lend to a "borrower" specific marketable corporate or government securities for an indefinite period. The borrower is normally a broker-dealer or bank. The lender retains the rights to the collection from the borrower of dividends, interest, premiums, rights, and splits, if incurred. The lender relinquishes voting rights. However, either the lender or the borrower can terminate the contract with advance notice as agreed upon so as to reestablish the lender's ownership and voting rights. The borrower generally provides collateral to the lender in the form of cash for corporate security loans, and substitutes acceptable United States government securities for government security loans. The collateral is in an amount in excess of the current value of securities loaned. Normally there are provisions for increasing or decreasing collateral daily in tandem with market value changes of the securities.

The reason broker-dealers or banks generally borrow specific securities is that they need such specific securities to complete a transaction with another investor.

Reverse repurchase agreements are verbal agreements as opposed to a written contract evidenced by simultaneous sale and purchase documents. The legal

owner of government securities agrees to temporarily sell specific securities to an investor who has temporarily idle cash. The investor is normally an institutional investor, broker-dealer, bank or savings and loan association. Simultaneously the seller also:

- Retains the right to normal interest income to be received on the securities
- Agrees to buy back these specific securities from the investor on a specified date at the same price
- Promises to pay a rate of interest income to the investor for use of the cash temporarily transferred.

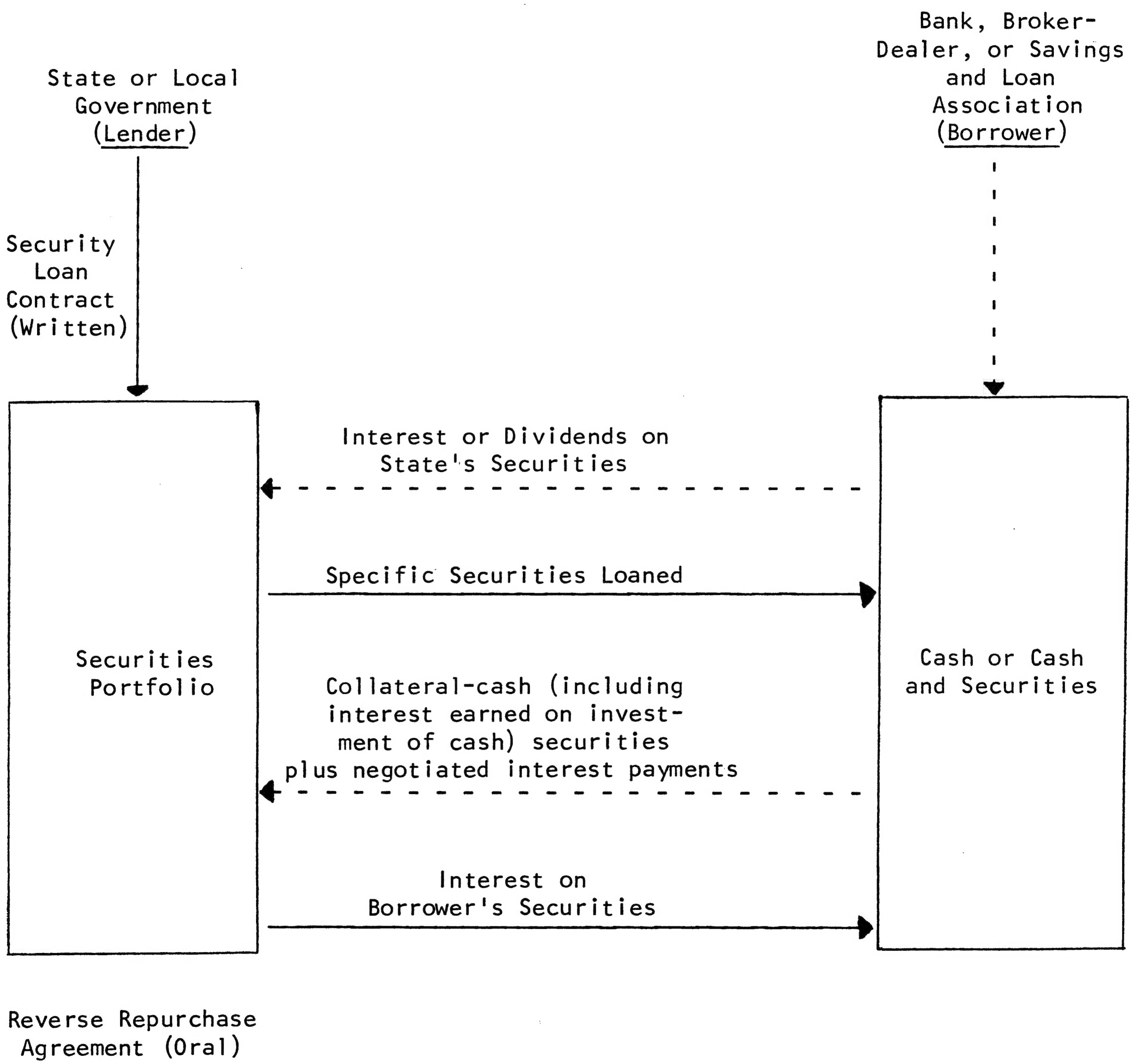
The investor also agrees to these terms. This has the effect of being a temporary loan of the securities.

The temporary seller of specific government securities in this manner has entered into a reverse repurchase agreement. Conversely, the investor of temporarily idle cash has entered into a repurchase agreement.

The temporary lender or seller of securities through security loans and reverse repurchase agreements respectively may invest and earn additional interest income from cash temporarily provided as collateral or from cash received from the sale of the securities. If government securities are provided as collateral, additional interest income is provided in the form of negotiated interest payments. Additionally, institutions which temporarily need cash for operations and do not wish to sell securities in their portfolio may obtain cash for operations through reverse repurchase agreements. However, because of constitutional limitations,

state and local governments in California cannot use reverse repurchase agreements for the purpose of borrowing money.

The basic schematic of security loans and reverse repurchase agreements is illustrated below.



Detailed schematics of security loans and reverse repurchase agreements are presented as Appendixes A and B.

No date can be cited as the date on which security loans and reverse repurchase agreements were first used. Most broker-dealers and institutional investors estimate that they are as old as the market place.

We are aware of no instance in which a broker-dealer or bank has failed to return securities that were temporarily transferred by an institution in the form of a security loan or reverse repurchase agreement.

The State Attorney General has opined that repurchase agreements are authorized under existing law. The Legislative Counsel and the Chief Counsel for the Office of the Auditor General have reservations about the ability of the state to enter into security loans or reverse repurchase agreements under existing law. However, the Legislative Counsel and the Chief Counsel for the Office of the Auditor General are of the opinion legislation could be adopted authorizing both security loans and reverse repurchase agreements.

Data presented in this report is based upon unaudited information. Certain information was supplied by agencies of the State of California and selected local governments. Other information was obtained from confidential interviews and data provided by institutional investors, banks, savings and loan associations, broker-dealers, and agents who presently enter into security loans, repurchase agreements and reverse repurchase agreements.

FINDING

THE STATE OF CALIFORNIA AND LOCAL GOVERNMENT AGENCIES, BY TEMPORARILY LENDING INVESTMENT SECURITIES THROUGH INVESTMENT TECHNIQUES REFERRED TO AS SECURITY LOANS AND REVERSE REPURCHASE AGREEMENTS, COULD EARN NET ADDITIONAL INTEREST INCOME, AFTER COSTS, ESTIMATED TO BE APPROXIMATELY $3.4 MILLION ANNUALLY WITH MINIMAL RISKS IF AUTHORIZING LEGISLATION IS ENACTED CONTAINING PROPER SAFEGUARDS FOR PRUDENT INVESTMENT MANAGEMENT.

The State of California and selected local governments are legal owners of approximately $16.7 billion of investment securities. From time to time, certain of these securities could be loaned to earn net additional income currently estimated to be approximately $3.4 million annually if legislation is enacted authorizing security loans and reverse repurchase agreements. Risks associated with these investment techniques can be minimized by provisions of authorizing legislation and by prudent investment management.

Estimated Amount of Investment Securities Available to Loan

The State of California and selected local governments are the legal owners of $716 million of United States government and federal agency securities and $7.1 billion of corporate securities consisting of $1.9 billion common, preferred and convertible-preferred stock, and $5.2 billion corporate and convertible bonds. These securities are available to temporarily loan through security loan agreements. Additionally, government securities are also available for reverse repurchase agreements. A summary of securities of the State of California and selected local governments and retirement systems which are suitable for security loans or reverse repurchase agreements is presented as Appendix C.

The amount of securities which can be loaned is dependent on market activity, economic conditions and needs by broker-dealers, banks, or savings and loan associations for securities which are owned by the state and local governments. However, we estimate that, on a daily average, the state and local governments could have $75 million of securities in corporate security loans, $25 million of securities in government security loans and $75 million of securities in reverse repurchase agreements.

Currently Estimated Net Additional Interest Income After Costs

Estimated net additional interest income after costs for various types of security loans and reverse repurchase agreements are described below. The estimates are based on data presented in Appendix D.

Corporate Security Loans with Cash or United States Government Securities as Collateral

The rate of net additional interest income from corporate security loans after costs is dependent on the size and the duration of a security loan, the level of interest rates and the costs of the transaction. The State of California and local government agencies would have to deliver securities for corporate security loans from Sacramento and other localities in California to New York City. Also, the State of California Public Employees and State Teachers Retirement Systems have corporate bonds in bearer form or registered in legal form rather than registered in nominee name. These conditions would add to the cost of corporate security loan transaction for the State of California or could limit the amount of security loans that could be transacted because the bonds are registered in

legal form. The effect these variables may have on net additional interest income is illustrated in Appendixes D through D-4.

We estimate that currently the net additional income to the State of California and the selected local government agencies form a corporate security loan program in addition to interest or dividends normally received on the securities would be approximately four percent, or $3 million annually. Our estimates of net additional interest income from corporate security loans assume a $1 million security loan, an average duration for the loan of ten days, and interest rates of five to seven percent. Further, four percent net additional interest income is approximately the midpoint for such a loan of securities registered in nominee name with only minimum transaction costs, and with such a loan of securities in bearer form with agent fees of one percent and rebate fees of two percent. These conditions are shown on Appendix D-2.

Government Security Loans Which Substitute United States Government Securities as Collateral

Government security loans generally are transacted for an additional rate of return to the lender of one-fourth to three-fourths of one percent before costs. However, provisions may be included to establish a minimum dollar amount to be earned as income which is intended to cover the costs of the agreement. Also, the contract may establish a higher rate of return during an initial period to permit costs to be recovered, then gradually scaling down the rate of return with the passage of time.

Government security loans on average tend to be outstanding for longer periods of time than corporate security loans and are usually for larger amounts

of securities. Additionally, government securities may be wired and money settlements made through the Federal Reserve System or at a local California bank. This significantly reduces the costs of delivery of the securities.

We estimate that approximately three-eighths of one percent net additional interest income, or approximately $100,000 annually, could be earned by the State of California and local agencies on government security loans, regardless of short-term interest rates.

Reverse Repurchase Agreements
With Cash as Collateral

The net additional interest income earned from reverse repurchase agreements is dependent upon the rate of interest income paid to the investor on the cash provided as collateral, and the rate of interest income earned on investments purchased with the cash obtained from the investor. Since the cash obtained is available for a definite time period, investments to be purchased with cash obtained, and thus the profitability of a reverse repurchase agreement could be determined prior to entering into the agreement.

The rate of interest income paid to the investor in a reverse repurchase agreement generally approximates the federal funds rate, which is generally recognized as the rate at which banks loan money to each other.

Certain short-term investments often provide higher rates of interest income for an investor than the federal funds rate. When the rate on these short-term investments exceeds the federal funds rate by three-eighths of one percent or more, the purchase of these short-term investments will yield the state or local

governments an additional three-eighths of one percent of income. For the State of California and selected local agencies, this would amount to approximately $300,000 net additional interest income annually.

Costs of Conducting Security Loans
And Reverse Repurchase Agreements Programs

Various costs and fees are incurred when conducting security loans and reverse repurchase agreements programs. If it is not possible to recover costs, it would not be advantageous to conduct a program.

However, the actual costs to be incurred can only be determined transaction by transaction through a negotiation process. Further, the actual costs are dependent on where the investment portfolio is held. The costs of conducting a security loan or reverse repurchase agreement program can be classified as follows:

Fixed Transaction Costs

Activity Charge -- Charge made for physical handling of securities by safekeeping agent holding or transferring securities to or from the investment portfolio.

Delivery and Insurance Fees -- Fees to transport securities to borrower's destination and insure against loss during transportation. Added costs are encountered if corporate securities are in bearer form rather than registered in nominee or legal name.

Investment and Safekeeping Costs -- Costs of investing cash received as collateral, or activity charge if government securities are received as collateral.

Bookkeeping and Administrative Charges -- Some professional investors have added 1 to 1-1/4 positions to their staff to record and report on the activities of security loan and reverse repurchase agreement programs.

Discretionary Costs

Agents' Fees -- Security loans may be arranged through an agent who serves as a "finder". Fees presently run from 1 to 1-1/2 per annum based on the average amount and time the loan is outstanding.

"Rebate Fees" -- Recently, during periods of historically high short-term interest rates of ten percent and more, certain but not all broker-dealers have required lenders to pay them fees of as much as two percent per annum based on the average amount and time the corporate security loan is outstanding. Although the "rebates" are still required by certain broker-dealers, professional investors participating in corporate security loans have advised us that "rebate fees" have gradually been reduced, as short-term interest rates have declined.

Fixed transaction costs for the State of California or local agencies to transact a $1 million corporate security loan in New York, including transferring bearer bonds by registered mail, would be approximately $303. The fixed transaction costs for such a transaction with registered corporate securities would be approximately $93. Discretionary costs may be incurred if an agent is used to

arrange the loan, of if the broker-dealer negotiates a "rebate fee". An agent's fee of one percent would cost an additional $28 per day per million dollars loaned. A "rebate fee" to brokers of two percent would cost an additional $56 per day per million dollars loaned. Illustrations of the effect of these costs on net additional interest income from security loans is shown on Appendixes D through D-3.

Fixed transaction cost for the State of California or local agencies for a $1 million government security loan or reverse repurchase agreement to any destination using the Federal Reserve System to wire securities, would be approximately $60. There would be no discretionary costs.

Risks of Security Loans and Reverse
Repurchase Agreements Programs

The risks of security loans and reverse repurchase agreements programs include the following:

- Loss of ownership of securities
  - Loss may result from the financial failure of a borrower (bank, broker-dealer or savings and loan association)
  - Loss may result from the inability of a borrower to terminate an agreement because there may not be sufficient securities available to purchase in the market place
- Loss may be incurred in trying to reacquire securities in the open market if the borrower is unable to return them

- Loss of normal interest income or any increases in value or premiums that would have been earned had the securities not been transferred may result if the borrower fails or if the program is not prudently administered

- Loss of voting rights if securities are reacquired in open market after stockholder of record date

- Loss of cash collateral by fund manager if investment of collateral results in loss

- Confusion which may result in loss due to verbally transacted reverse repurchase agreements

- Loss of difference between margin value and market value on securities temporarily sold on reverse repurchase agreements if the borrower experiences financial failure. (Presently, the margin requirement for government securities is 90 percent.)

- Embarrassment in the event of unethical practices by agents, borrowers and institutional investors

- Costs of conducting a security loan and reverse repurchase agreement program may exceed gross income received.

These risks can be minimized as described below.

Comments of Responsible Officials
Conducting Security Loans and Reverse
Repurchase Agreements Programs

Responsible officials representing institutional investors, security loan agents, broker-dealers, banks, and savings and loan associations all advised

us that they were aware of no losses incurred by the lender of securities through security loans and reverse repurchase agreements because of the inability of the borrower to return securities. Further these officials, independently interviewed regarding the advisability and guidelines for initiating security loan programs, provided the following consensus.

- The practice of loaning securities is as old as the market place
- The Federal Reserve Board and the New York Stock Exchange regulate and accept security loans
- Security loans serve a necessary function in the market place
- A security loan contract should be developed to minimize risks and a legal opinion as to its validity should be obtained
- The investment authority permitting security loans should establish guidelines for the prudent management of the program and clearly delegate authority and responsibility to carry out the program to a competent staff
- Know who you are dealing with. Transact security loans only with reputable broker-dealers, banks and security loan agents possessing sound financial structure
- The net additional interest income earned is very rewarding after consideration of the risks
- The major risks to lenders of securities occur if a broker-dealer suffers financial failure when the general price of securities is increasing. In such a condition, the collateral may be

insufficient to reacquire the securities in the open market. This risk is minimized, however, because broker-dealers historically do well when the general price of securities is increasing

- Develop controls, systems and reports to monitor the program.

Many of these comments are also applicable to reverse repurchase agreements.

CONCLUSION

The State of California and local government agencies, by temporarily lending investment securities through investment techniques referred to as security loans and reverse repurchase agreements, could earn an estimated $3.4 million net additional interest income annually, after costs, with minimal risk if authorizing legislation is enacted containing proper safeguards for prudent investment management.

RECOMMENDATIONS

We recommend that legislation be enacted:

- Authorizing the State of California and local governments to enter into security loans and reverse repurchase agreements

- Containing a standard security loan contract, acceptable to reputable broker-dealers and banks, to be used by all agencies, which includes but is not limited to the following safeguards to minimize risks:

  -- Loan of Securities -- Establishment of the intent of the contract to be a loan agreement and containing provision for proper description of specific securities to be loaned

  -- Collateral -- Limitation of acceptable collateral to cash or acceptable U.S. government securities, and provision that collateral be in an amount greater than the value of securities loaned

  -- Termination of the Loan -- Establishment of a maximum time period of notice to terminate the agreement

  -- Dividends, Distributions, Etc. -- Provision that the State of California and local governments shall receive all regular dividend or interest payments made on the loaned securities. Any increases in value or premiums which would accrue to the legal owners of securities that have been loaned shall be due to the state or local governments. The borrower shall pay these amounts and distribute them to the State of California and local agencies at the time they normally would be paid by the issuers of the securities.

-- Marking to Market -- Provision to adjust the value of the collateral daily in tandem with increases or decreases in the value of the securities loaned and provided as collateral in five percent increments as price changes occur on recognized exchanges or trading markets

-- Remedy for Failure to Deliver -- Provision that after proper notice of termination is given, the borrower shall agree to permit the State of California or local governments to convert the collateral to cash. Further, the cash shall be used to reacquire in the open market the securities that were loaned. In the event the cost of reacquiring the securities is greater than the collateral, the borrower shall be liable for the balance and required to pay an interest penalty. The interest penalty shall be the maximum amount chargeable by California laws.

-- Transfer Taxes and Necessary Costs -- Agreement that the borrower shall pay all costs and expenses involved with returning securities loaned by the State of California and local governments

-- Notices and Deliveries -- Designation of the responsible official(s) and address(es) where correspondence, deliveries and distributions shall be sent

-- <u>Financial Condition of Borrower</u> -- Provision that the borrower shall routinely furnish the State of California or local government agencies with statements of financial condition required by rule 17a-5(m) of the Securities and Exchange Commission as required by the Securities Exchange Act of 1934. Further, the borrower shall notify the State of California or local governments, whenever new agreements are negotiated, as to whether the latest statement available fairly presents the financial condition and net capital ratio of the borrower. The borrower shall agree to limit loans with the State of California and local governments to 30 percent of his net capital at any given time

-- <u>Assignment</u> -- Provision to prohibit the assignment of the contract to any third party.

- Containing the following provisions for safe and prudent investment management for a security loan program and to clearly delegate responsibility to the investment fund managers for the day-to-day operation of the programs by:

  -- Requiring the use of the State of California's standard security loan contract

  -- Limiting securities to be loaned to authorized securities owned which are marketable

-- Entering security loans only with reputable broker-dealers who are members of major security exchanges, reputable California or national banks

-- Limiting the purpose of security loan programs for the State of California and local governments to prudently supplementing the net additional interest income normally received from securities

-- Requiring each investment authority which conducts a security loan program to develop controls and reports to monitor the conduct of the program and publicize the net results of the program separate from the results of other investment activities.

- Containing the following provisions providing for safe and prudent investment management for a reverse repurchase agreement program and to clearly delegate responsibility to the investment fund managers for the day-to-day operation of the program by:

  -- Requiring the creation of simultaneous sale and purchase documents to evidence verbally transacted reverse repurchase agreements

  -- Limiting securities temporarily sold through reverse repurchase agreements to authorized U.S. government and federal agency securities owned which are marketable

-- Entering reverse repurchase agreements only with reputable broker-dealers who are members of major security exchanges, reputable California or national banks, reputable savings and loan associations, or other state or local government agencies of California

-- Limiting the purpose of a reverse repurchase agreement program for the State of California and local governments to prudently supplementing the net additional interest income normally received from such securities

-- Requiring each investment authority which conducts a reverse repurchase agreement program to develop controls and reports to monitor the conduct of the program and publicize the net results of the program separate from the results of other investment activities.

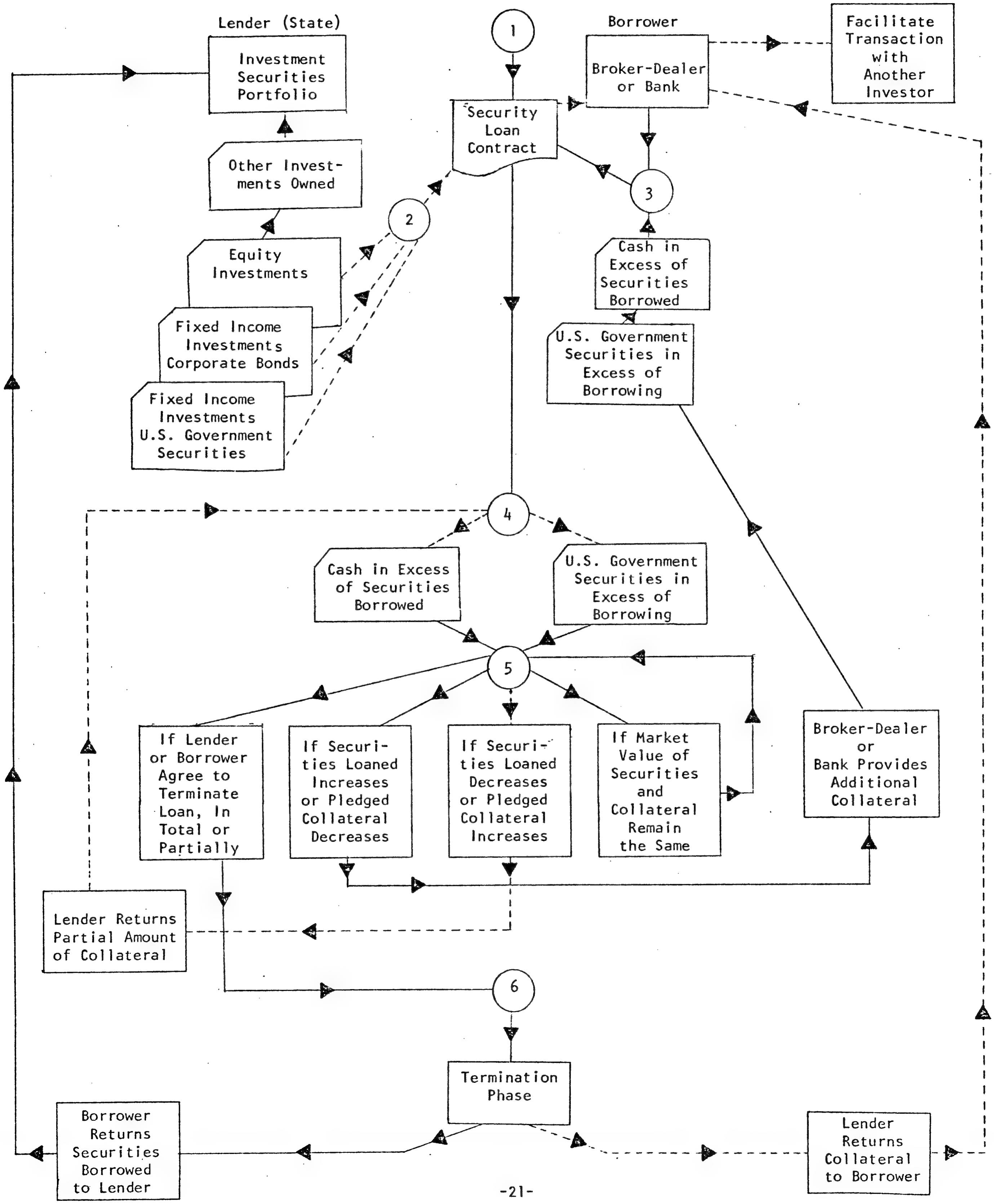
SAVINGS

Proper implementation of these recommendations will increase net additional interest income after costs to the state and local government agencies by an amount estimated to be approximately $3.4 million annually.

APPENDIX A

- - - - Lender
——— Borrower

SCHEMATIC OF SECURITY LOANS



1 Initiation Phase -- Telephone negotiation to determine desirability of borrower and lender to enter into a written security loan contract, which provides the lender with normal interest income paid or any premiums offered by issuer of security loaned. Further collateral is provided as a good faith deposit by the borrower, permitting the lender to earn additional interest income.

2 Borrower enters into security loans to facilitate an investment transaction for specific investment securities owned by the lender and needed by the borrower and another investor.

3 Concurrent with 2, borrower agrees to provide collateral to lender as a good faith deposit of intention to eventually terminate loan and a means to earn additional income.

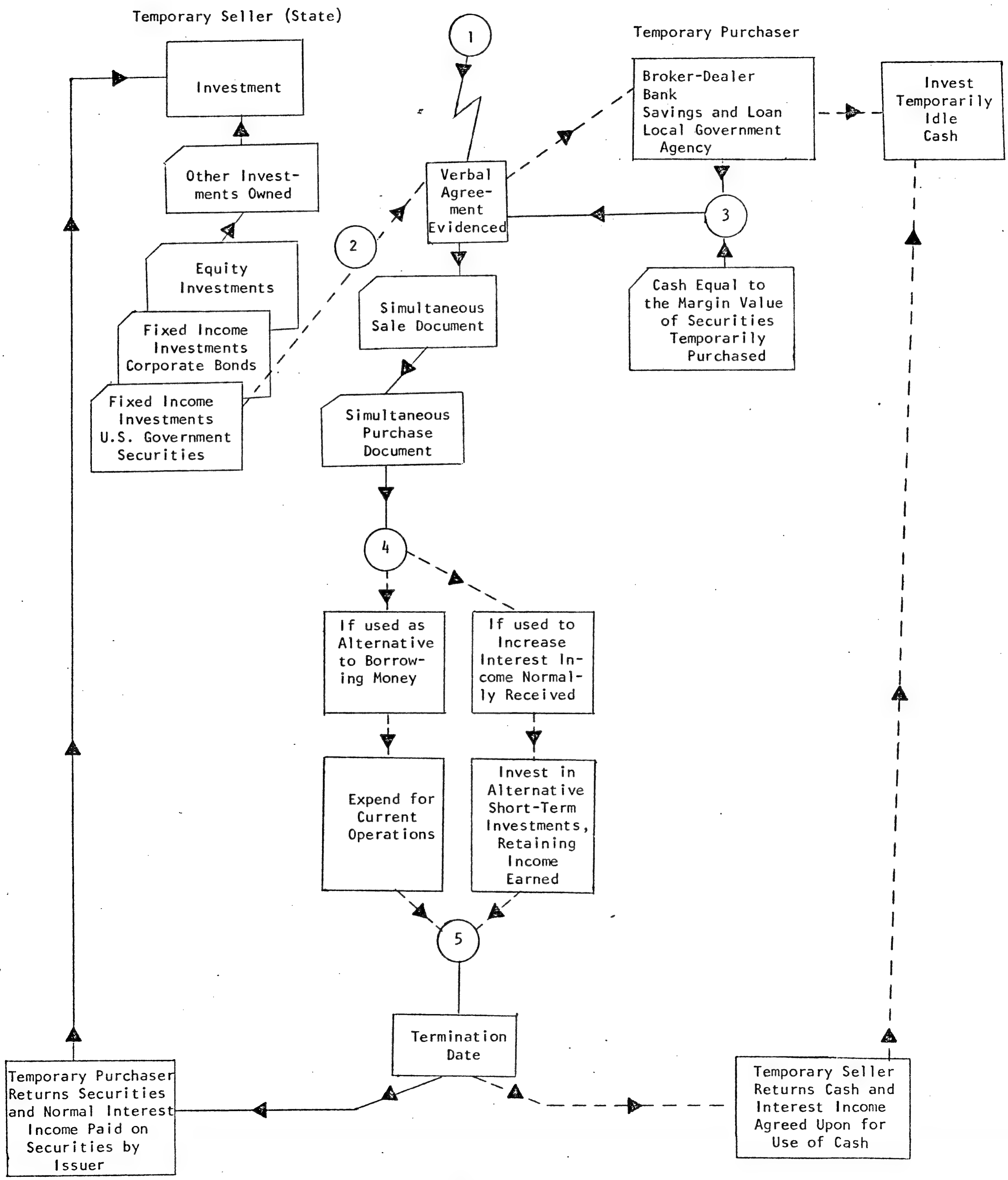
4 Collateral is provided by the borrower in excess, by a stated amount, of the market value of the securities borrowed from the lender by two methods: Cash which the lender invests in short-term money market investments and keeps the interest income earned or U.S. Government securities after the broker-dealer or bank agrees to pay the lender a rate of interest income for the duration of the loan.

5 Duration Phase -- While the loan is outstanding, the borrower agrees to pay all interest income or accretions of any kind offered by the issuer of securities which were loaned, to the lender, and both the borrower and lender agree to return or provide additional collateral as the market value of securities loaned or received as collateral fluctuates.

6 Termination Phase -- As mutually agreed in the contract, the process for concluding a security loan must be for all of the securities. However, from time to time, partial terminations will be made, until all securities loaned and collateral pledged is returned to the lender and borrower. In the event the termination phase cannot be completed due to borrower's inability to return securities after proper notice, the lender will convert the collateral to cash and acquire the securities in the open market. Further, the borrower is liable at penalty amounts for any costs involved in reacquiring the securities, should the collateral not be sufficient.

- - - - Temporary Seller
_______ Temporary Buyer

SCHEMATIC OF REVERSE REPURCHASE AGREEMENTS



1 Initiation Phase -- A verbal telephone agreement between a temporary seller of securities and a temporary purchaser who has temporarily idle cash to invest and is referred to as an investor.

2 The temporary seller retains the normal interest income paid or any premiums offered by the U.S. government or federal agency which issued the security. Further, the temporary seller agrees to buy back the securities at a definite future date and pay the temporary purchaser or investor, a rate of interest income for the use of his temporarily idle cash.

3 The temporary purchaser agrees to these terms because of the inability to find an alternative investment instrument to purchase or the need for the specific securities to facilitate a transaction with another investor. The temporary purchaser provides the temporary seller with cash equal to the current margin value (currently 90 percent of the market value) of the securities. In the event the temporary purchaser is unable to return the securities, the temporary seller may repurchase the securities in the open market to the extent that cash is advanced to the temporary seller and may initiate legal proceedings to recover the balance.

4 Cash received by temporary seller may be invested in other short-term investments to earn additional income from securities if the rate of income being paid to the temporary purchaser for use of his temporarily idle cash in conjunction with 2 is less than alternative investments purchased with the cash. Further, a temporary seller may use the cash received in his operations as an alternative to borrowing money from a bank. However, the State of California and local agencies are constitutionally prohibited from using the cash received as an alternative to borrowing money.

5 Termination Date -- As verbally agreed upon and shown in the simultaneous purchase document the reverse repurchase agreement concludes in total at a specified date per 2. The temporary seller returns the cash to the temporary purchaser with the agreed interest income for the use of the temporarily idle cash. The temporary purchaser returns the securities temporarily purchased with the normal interest income earned on the securities temporarily purchased. In the event the temporary seller does not return the cash, the temporary purchaser may liquidate the securities.

SUMMARY OF SECURITY PORTFOLIOS OF SELECT STATE LOCAL GOVERNMENT AND RETIREMENT SYSTEMS
(IN MILLIONS OF DOLLARS)

	Fixed Income Investments		Corporate Equity Investments 3/	Total Fixed Income and Equity Investments Available For Security Loans 4/	Other Investments 5/	Total Investments Owned
	U.S. Government and Agencies 1/	Corporates 2/				
Selected state government security portfolios 6/	$257	$ -0-	$ -0-	$ 257	$2,718	$2,975
Selected local government security portfolios 7/	14	-0-	-0-	14	3,202	3,216
Public Employees' Retirement System security portfolio 8/	225	2,122	1,162	3,509	1,588	5,097
State Teachers Retirement System security portfolio 9/	168	1,513	110	1,791	670	2,461
Selected local retirement systems security portfolios 10/	52	1,554	662	2,268	684	2,952
Total selected state and local government retirement systems security portfolios	$716	$5,189	$1,934	$7,839	$8,862	$16,701

Footnotes listed on following page.

FOOTNOTES TO APPENDIX C

1/ Bonds or notes issued by the U.S. Treasury, federal agencies or entities which contain the guarantee of the U.S. government for the payment of principal and interest, and purchased through security exchanges or the over-the-counter market.

2/ First mortgage bonds, debentures or convertible debentures issued by U.S. public corporations, and purchased through security exchanges or the over-the-counter market.

3/ Common, convertible-preferred and preferred stocks issued by U.S. public corporations and purchased through security exchanges or the over-the-counter market.

4/ All investments owned that are available for security loans. However, reverse repurchase agreements are normally transacted only for U.S. government and agencies fixed income investments owned.

5/ Includes fixed income municipal bonds, Canadian bonds, special assessment bonds, private placement investments, real estate and mortgage loans, short-term investments and other miscellaneous investments, generally not used for security loan or reverse repurchase agreement programs.

6/ Selected state government security portfolios (reported at book value as of January 31, 1975):

Pooled Money Investment Account
State Highway Fund
Marketing Trusts
Unemployment Compensation Disability Fund
Central Valley Water Project (various investment funds)
Department of Health -- Mental Hygiene Trust Accounts
Veterans Home of California
Department of Corrections -- Inmate Welfare Fund
Department of Education (various educational funds)
California State University and Colleges (various funds)

7/ Selected city and county general security portfolios (reported at latest book value available):

Los Angeles County
City of Los Angeles
Orange County
Sacramento County
City of Sacramento
City and County of San Francisco
San Diego County
City of San Diego

8/ Public Employees Retirement System security portfolio, June 30, 1973 market value

9/ State Teachers Retirement System security portfolio, December 31, 1973 market value

10/ Selected city and county retirement fund security portfolios (fixed income investments are reported at par value while all other investments are reported at book value as of the date most recently available).

Los Angeles County Employees' Retirement System
Fire and Police Pension System and New Pension System of the City of Los Angeles
Water and Power Employees' Retirement, Disability and Death Benefit Insurance Plan of the City of Los Angeles
Orange County Employees' Retirement System
Sacramento County Employees' Retirement Association
Sacramento City Employees' Retirement System
City and County of San Francisco Employees' Retirement System
San Diego County Employees' Retirement Association
The City of San Diego Employees' Retirement Trust Fund.

ILLUSTRATIONS OF NET ADDITIONAL INTEREST INCOME WHICH MAY BE EARNED SHOWING EFFECTS OF SELECTED SIZES AND DURATIONS OF SECURITY LOANS AND REVERSE REPURCHASE AGREEMENTS, INTEREST RATES, TRANSACTION COSTS, AGENT FEES AND REBATE FEES

A $1 MILLION CORPORATE SECURITY
LOAN AT VARIOUS INTEREST RATES FOR ONE DAY

Interest Rates 1/	Four Percent: Securities In Bearer Form 2/	Four Percent: Securities Requested In Nominee Name	Six Percent: Securities In Bearer Form 2/	Six Percent: Securities Requested In Nominee Name	Eight Percent: Securities In Bearer Form 2/	Eight Percent: Securities Requested In Nominee Name
Gross additional interest income	$ 111	$111	$ 167	$167	$ 222	$222
Fixed transaction costs 3/	303	93	303	93	303	93
Net additional interest income after costs, assuming no agent or rebate fee is paid	(192)	18	(136)	74	(81)	129
Net annual rate of return 6/	Loss	.66%	Loss	2.69%	Loss	4.71%
Discretionary costs						
Agent fee of one percent 4/	28	28	28	28	28	28
Net additional interest income after costs, assuming an agent fee of one percent is paid but no rebate fee is paid	(220)	(10)	(164)	46	(109)	101
Net annual rate of return 6/	Loss	Loss	Loss	1.67%	Loss	3.69%
Rebate fee of two percent 5/	56	56	56	56	56	56
Net additional interest income after costs, assuming rebate fee of two percent but no agent fee is paid	(248)	(38)	(192)	18	(137)	73
Net annual rate of return 6/	Loss	Loss	Loss	.66%	Loss	2.67%
Net additional interest income after costs, assuming an agent fee of 1 percent & a rebate fee of 2 percent are paid	(276)	(66)	(220)	(10)	(165)	45
[illegible] 6/	[illegible]	Loss	Loss	Loss	Loss	1.67%

APPENDIX D-2

A $1 MILLION CORPORATE SECURITY
LOAN AT VARIOUS INTEREST RATES FOR TEN DAYS

Interest Rates1/	Four Percent: Securities In Bearer Form2/	Four Percent: Securities Registered In Nominee Name	Six Percent: Securities In Bearer Form2/	Six Percent: Securities Registered In Nominee Name	Eight Percent: Securities In Bearer Form2/	Eight Percent: Securities Registered In Nominee Name
Gross additional interest income	$1111	$1111	$1667	$1667	$2222	$2222
Fixed transaction costs3/	303	93	303	93	303	93
Net additional interest income after costs assuming no agent or rebate fee is paid	808	1018	1364	1574	1919	2129
Net annual rate of return6/	2.95%	3.72%	4.98%	5.74%	7.01%	7.77%
Discretionary Costs						
Agent Fee of One Percent4/	278	278	278	278	278	278
Net additional interest income after costs assuming an agent fee of one percent is paid but no rebate fee is paid	530	740	1086	1296	1641	1851
Net annual rate of return6/	1.94%	2.70%	3.96%	4.73%	5.99%	6.76%
Rebate fee of two percent5/	556	556	556	556	556	556
Net additional interest Income after costs assuming a rebate fee of two percent but no agent fee is paid	252	462	808	1018	1363	1573
Net annual rate of return6/	.01%	1.69%	2.95%	3.72%	4.98%	5.74%
Net additional interest income after costs assuming an agent fee of one percent and a rebate fee of two percent are paid	(26)	184	530	740	1085	1295
Net annual rate of return6/	Loss	.67%	1.94%	2.70%	3.96%	4.73%

APPENDIX D-3

A $5 MILLION CORPORATE SECURITY
LOAN AT VARIOUS INTEREST RATES FOR TEN DAYS

Interest Rates 1/	Four Percent: Securities In Bearer Form 2/	Four Percent: Securities Registered In Nominee Name	Six Percent: Securities In Bearer Form 2/	Six Percent: Securities Registered In Nominee Name	Eight Percent: Securities In Bearer Form 2/	Eight Percent: Securities Registered In Nominee Name
Gross additional interest income	$5556	$5556	$8333	$8333	$11111	$11111
Fixed transaction costs 3/	1260	135	1260	135	1260	135
Net additional interest income after costs assuming no agent or rebate fee is paid	4296	5421	7073	8198	9851	10976
Net annual rate of return 6/	3.14%	3.96%	5.16%	5.99%	7.19%	8.01%
Discretionary costs						
Agent fee of one percent 4/	1389	1389	1389	1389	1389	1389
Net additional interest income after costs assuming an agent fee of one percent is paid but no rebate fee is paid	2907	4032	5684	6809	8462	9587
Net annual rate of return 6/	2.12%	2.94%	4.15%	4.97%	6.18%	7.00%
Rebate fee of two percent 5/	2778	2778	2778	2778	2778	2778
Net additional interest income after costs assuming a rebate fee of two percent but no agent fee is paid	1518	2643	4295	5420	7073	8198
Net annual rate of return	1.11%	1.93%	3.14%	3.96%	5.16%	5.99%
Net additional interest income after costs assuming an agent fee of one percent and a rebate fee of two percent are paid	129	1254	2906	4031	5684	6809
Net annual rate of Return 6/	.09%	.92%	2.12%	2.94%	4.15%	4.97%

FOOTNOTES TO APPENDIXES D-1, D-2 and D-3

1/ Interest rates for either the short term interest rates at which cash collateral would be reinvested or negotiated rate of interest payments if U. S. Government securities are provided as collateral, based on 360-day year.

2/ The State of California's Public Employees and State Teachers' Retirement Systems, and perhaps certain local governments, have some corporate bonds in bearer form.

3/ Fixed transaction costs are based upon cost of registered mail from Sacramento to New York City.

4/ Often it is not necessary to enter security loans through an agent. However, at other times, an agent can increase net additional interest income to a lender from a security loan program. Agent fees vary.

5/ Recently, during periods of historically high short-term interest rates, certain, but not all, broker-dealers required payment of "rebate fees". Such fees amounted to as much as two percent per annum based on the average amount of the loan outstanding. Although the rebate fees are still required by certain broker dealers, professional investors participating in security loans have advised us that rebate fees have gradually been reduced as short-term interest rates have declined.

6/ Net annual rate of return based on 365-day year.

APPENDIX D-4

A GOVERNMENT SECURITY LOAN OR REVERSE
REPURCHASE AGREEMENT OF $1 MILLION, $5 MILLION
OR $10 MILLION FOR A DURATION OF 1, 10 OR
30 DAYS AT ONE-HALF OF ONE PERCENT
GROSS ADDITIONAL INCOME

	Gross Additional Interest Income	Fixed Transaction Costs 1/	Net Additional Interest Income	Net Annual Rate of Return
$1,000,000 Government Security Loan or Reverse Repurchase Agreement				
1 day	$ 14	$60	$ (46)	loss
10 days	139	60	79	.0029%
30 days	417	60	357	.0043%
$5,000,000 Government Security Loan or Reverse Repurchase Agreement				
1 day	69	60	9	.0007%
10 days	694	60	634	.0046%
30 days	2,083	60	2,023	.0049%
$10,000,000 Government Security Loan or Reverse Repurchase Agreement				
1 day	139	60	79	.0029%
10 days	1,389	60	1,329	.0049%
30 days	4,167	60	4,107	.0050%

1/ Vault activity charges by the State Treasurer, state recordkeeping and administrative costs, handling charges by banks, and Federal Reserve were charges.